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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,208	09/28/2001	Mithat C. Dogan	015685.P123	6059
45222	7590	10/05/2005	EXAMINER	
ARRAYCOMM/BLAKELY			NGUYEN, DUNG X	
12400 WILSHIRE BLVD			ART UNIT	
SEVENTH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90025-1030			2638	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/967,208	<b>Applicant(s)</b> DOGAN ET AL.	
	<b>Examiner</b> Dung X. Nguyen	<b>Art Unit</b> 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1 - 14, 16, and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 13 is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/22/05</u> . | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. Applicant's arguments filed on July 22, 2005 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

***Claim Objections***

2. **Claim 16 is objected** to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

*The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

4. **Regarding claim 14**, the statement of "the autocorrelation" as recited in line 9. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject*

*matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. **Claim 14 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Satorius et al. (US patent # 4,397,029), and further in view of Guberman (US patent # 6,138,089).

Regarding claim 14, Satorius et al. discloses (figure):

- A data store having stored therein a plurality of ordered sequences for uses in generating a training sequence (column 4, lines 49 – 52); and
- A processor to generate the training sequence by taking a number of elements of one of the plurality ordered sequences in order (column 4, line 25 to column 5, line 10).

Satorius et al. differs from the instant claimed invention that it does not expressly show wherein a function of the autocorrelation of the training sequence is below a threshold value.

However, Guberman discloses wherein a function of the autocorrelation threshold should be below the threshold (column 19, lines 15 – 22), keeping the autocorrelation value in the range of 0.7 – 0.9 (column 19, lines 23 – 25, and the function of the autocorrelation should be kept smaller the threshold value to keep the training sequence in reliable).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Satorius et al. and Guberman as providing the requirement of the instant claimed invention for keeping the autocorrelation of the training sequence below the threshold value.

#### ***Allowable Subject Matter***

7. **Claim 17 would be allowable** if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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8. **Claims 1 – 13 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to claim 1, the prior art of record fails to show or render obvious of a method includes selecting a set of one or more original ordered sequences such that the set of ordered sequences has at least one desired property, creating a set of extended sequences, each based on an original ordered sequence by beginning with an element of the original sequence, cyclically appending elements of the original sequence in order to obtain a desired extended sequence length, and modifying each extended sequence using a corresponding modifying sequence, such that the training sequence can be generated from any one of the modified extended sequences by beginning with any one element of any one modified extended sequence and taking each element of the any one sequence in order to obtain the training sequence.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawaguchi et al. (US patent application publication # 2002/0110109 A1) discloses a CDMA receiver.

Raphaeli et al. (US patent # 6,671,311 B1) discloses a receiver for use in a code shift keying spread spectrum communication system.

### ***Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Vanderpuye, Kenneth N. can be reached on (571) 272-3078. The fax phone numbers for this group is (571) 273-3021.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

September 19, 2005



**KENNETH VANDERPUYE**  
**PRIMARY EXAMINER**